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IBM CORPORATION (RUS)				RODRIGUEZ, LENNIN R
c/o Rudolf O Siegesmund Gordon & Rees, LLP				ART UNIT
2100 Ross Avenue				PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/626,193	GUSLER ET AL.	
	Examiner	Art Unit	
	LENNIN R. RODRIGUEZ	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 February 2008.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-29 and 32-44 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-29 and 32-44 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/26/2008 has been entered.

Response to Arguments

2. Applicant's arguments filed on 2/26/2008 have been fully considered but they are not persuasive. Applicant's argument regarding "that Christodoulou and Rourke are silent as to a required printer being a specific printer, and more specifically, when the required printer type is a specific printer, compiling all pages from the plurality of print jobs requiring the specific printer into a single print job for the specific printer" has been fully considered, in response "Christodoulou '092 discloses all the subject matter as described above except wherein when the required printer type is a specific printer, compiling all pages from the plurality of print jobs requiring the specific printer into a single print job for the specific printer."

However, Rourke '721 teaches wherein when the required printer type is a specific printer (column 2, lines 19-24, where the document is being separated into

different printer types (black/white, color, etc)), compiling all pages from the plurality of print jobs requiring the specific printer into a single print job for the specific printer (column 13, lines 42-49, where each portion of each job that correspond to different characteristics, is divided and put into a queue that correspond to each specific printer).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made separating each of the plurality of document pages into a plurality of print jobs based on the required printer type for each document page, placing each of the plurality of document pages into an appropriate holding queue for an appropriate printer and wherein when the required printer type is a specific printer, compiling all pages from the plurality of print jobs requiring the specific printer into a single print job for the specific printer as taught by Rourke '721, in the system of Christodoulou '092. In doing so, the system distribute the workflow of the document into different jobs, thus having less amount of work in each device and lowering the extra work of each device making the system efficient." Applicant's argument regarding "Christodoulou does not disclose data regarding a number of jobs in a print queue because a store or tog of job tickets is not the same as a print queue. Moreover, Christodoulou does not disclose providing printer speed and the amount of paper in a printer bin. For example, Christodoulou discloses data on the amount of paper required for a job, but this is not the same as data on the amount of paper in a specific printer bin." Has been fully considered, in response "Christodoulou '092 and Rourke '721 disclose all the subject matter as described above except wherein the appropriate printer is determined using a print farm profile; and wherein the print farm profile

includes data regarding a number, a size, and a type for each of a plurality of print jobs in a print queue for the appropriate printer, and a printer speed and an amount of paper in a printer bin for the appropriate printer.

However, Chang '086 teaches wherein the appropriate printer is determined using a print farm profile; and wherein the print farm profile includes data regarding a number, a size, and a type for each of a plurality of print jobs in a print queue for the appropriate printer, and a printer speed and an amount of paper in a printer bin for the appropriate printer (column 6, lines 7-49, where the device object has been interpreted as a profile and it contains all the characteristics suggested by the print farm profile).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made wherein the appropriate printer is determined using a print farm profile; and wherein the print farm profile includes data regarding a number, a size, and a type for each of a plurality of print jobs in a print queue for the appropriate printer, and a printer speed and an amount of paper in a printer bin for the appropriate printer as taught by Chang '086 in the system of Christodoulou '092 and Rourke '721. With this an object may refer to a software and data entity, which may reside in different hardware environments or platforms or applications. An object may encapsulate within itself both data and attributes describing the object, as well as instructions for operating that data. For simplicity of discussion, an object may also include, for example, the concept of software components that may have varying granularity and can consist of one class, a composite of classes, or an entire application (column 5, lines 11-20)."

3. Claim objections have been withdrawn.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-3, 6-7, 15-17, 20-21, 29, 32-33 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christodoulou et al. (US 2002/0159092) in view of Rourke et al. (US 5,995,721).

(1) regarding claims 1, 15 and 29:

Christodoulou '092 discloses a method for printing a document comprising:
analyzing a metadata in a plurality of document pages to determine a required printer type (paragraph [0036], lines 9-16, where the data provided is being analyzed to determined the printer type);

selecting an appropriate printer for each of the plurality of print jobs (paragraph [0036], lines 9-16, where the program identifies the printer that is capable of handling the job, wherein identification is performing selection after it identifies); and
printing the plurality of print jobs on the appropriate printers (paragraph [0036], lines 9-16, where "dispatches" is being interpreted as printing the job).

Christodoulou '092 discloses all the subject matter as described above except for separating each of the plurality of document pages into a plurality of print jobs based on the required printer type for each document page;

placing each of the plurality of document pages into an appropriate holding queue for an appropriate printer; and

wherein when the required printer type is a specific printer, compiling all pages from the plurality of print jobs requiring the specific printer into a single print job for the specific printer.

However, Rourke '721 teaches separating each of the plurality of document pages into a plurality of print jobs based on the required printer type for each document page (column 2, lines 19-24, where the document is being separated into different printer types);

placing each of the plurality of document pages into an appropriate holding queue for an appropriate printer (column 5, lines 15-21, where there is a queue for each of a plurality of documents); and

wherein when the required printer type is a specific printer (column 2, lines 19-24, where the document is being separated into different printer types (black/white, color, etc)), compiling all pages from the plurality of print jobs requiring the specific printer into a single print job for the specific printer (column 13, lines 42-49, where each portion of each job that correspond to different characteristics, is divided and put into a queue that correspond to each specific printer).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made separating each of the plurality of document pages into a plurality of print jobs based on the required printer type for each document page, placing each of the plurality of document pages into an appropriate holding queue for an appropriate printer and wherein when the required printer type is a specific printer, compiling all pages from the plurality of print jobs requiring the specific printer into a

single print job for the specific printer as taught by Rourke '721, in the system of Christodoulou '092. In doing so, the system distribute the workflow of the document into different jobs, thus having less amount of work in each device and lowering the extra work of each device making the system efficient.

(2) regarding claims 2, 16 and 32:

Christodoulou '092 discloses all the subject matter as described above except reassembling the plurality of printed print jobs to produce a finished document.

However, Rourke '721 teaches reassembling the plurality of printed print jobs to produce a finished document (column 2, lines 25-28, where with the sheet inserter both jobs can be put together).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made reassembling the plurality of printed print jobs to produce a finished document as taught by Rourke '721, in the system of Christodoulou '092. In doing so, the system distribute the workflow of the document into different jobs, thus having less amount of work in each device and lowering the extra work of each device making the system efficient.

(3) regarding claims 3, 17 and 33:

Christodoulou '092 further discloses distributing one of the plurality of document pages to a specific printer holding queue (paragraph [0036], lines 9-16, where the program is selecting an specific printer for each print job, and paragraph [0032], lines 9-14, where it defines a queue that each printer has); and

wherein the required printer for the distributed document page is a specific printer (paragraph [0037], lines 20-32, where candidates printers capable of performing the job are being identified and one of them is picked to perform the operation).

(4) regarding claims 6, 20 and 36:

Christodoulou '092 discloses all the subject matter as described above except distributing one of the plurality of document pages to a color primer holding queue; and wherein the required printer for the distributed document page is a color printer.

However, Rourke '721 teaches distributing one of the plurality of document pages to a color printer holding queue (column 11, lines 34-45); and

wherein the required printer for the distributed document page is a color printer (column 12, lines 64-65).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made distributing one of the plurality of document pages to a color primer holding queue and wherein the required printer for the distributed document page is a color printer as taught by Rourke '721, in the system of Christodoulou '092. In doing so, the system distribute the workflow of the document into different jobs, thus having less amount of work in each device and lowering the extra work of each device making the system efficient.

(5) regarding claims 7, 21 and 37:

Christodoulou '092 discloses all the subject matter as described above except distributing one of the plurality of document pages to a black/white printer holding queue; and

wherein the required printer for the distributed document page is a black/white printer.

However, Rourke '721 teaches distributing one of the plurality of document pages to a black/white printer holding queue (column 11, lines 34-45); and

wherein the required printer for the distributed document page is a black/white printer (column 12, lines 66-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made distributing one of the plurality of document pages to a black/white printer holding queue and wherein the required printer for the distributed document page is a black/white printer as taught by Rourke '721, in the system of Christodoulou '092. In doing so, the system distribute the workflow of the document into different jobs, thus having less amount of work in each device and lowering the extra work of each device making the system efficient.

6. Claims 4, 18 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christodoulou et al. (US 2002/0159092) and Rourke et al. (US 5,995,721) as applied to claims above, and further in view of Sasso (US 4,591,146).

Christodoulou '092 and Rourke '721 disclose all the subject matter as described above except the specific printer is a printer containing letterhead.

However, Sasso '146 teaches the specific printer is a printer containing letterhead (column 1, lines 31-33).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the specific printer as a printer containing letterhead as

taught by Sasso '146, in the system Christodoulou '092 and Rourke '721. In doing so the user does not have to specify a header, since the letterhead is already in place, thus making the system user-friendlier.

7. Claims 5, 19 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christodoulou et al. (US 2002/0159092) and Rourke et al. (US 5,995,721) as applied to claims above, and further in view of Burns et al. (US 6,707,950).

Christodoulou '092 and Rourke '721 disclose all the subject matter as described above except the specific printer is a photographic printer.

However, Burns '950 teach the specific printer is a photographic printer (column 4, lines 24-30).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the specific printer as a photographic printer as taught by Burns '950, in the system of Christodoulou '092 and Rourke '721. In doing so, the user can be able to print out photos that could be among the printer divided print jobs, thus making the system more efficient and expanding its capabilities.

8. Claims 8, 22 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christodoulou et al. (US 2002/0159092) and Rourke et al. (US 5,995,721) as applied to claims above, and further in view of Winston et al. (US 2002/0186384).

Christodoulou '092 and Ferlitsch '042 disclose all the subject matter as described above except comparing each print job to a printer page threshold; and responsive to a determination that the number of document pages in the print job exceeds the printer page threshold, separating print job into a plurality of print jobs.

However, Winston '384 teaches comparing each print job to a printer page threshold (paragraph [0031]); and

responsive to a determination that the number of document pages in the print job exceeds the printer page threshold, separating print job into a plurality of print jobs (paragraph [0031] and [0032]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made comparing each print job to a printer page threshold and responsive to a determination that the number of document pages in the print job exceeds the printer page threshold, separating print job into a plurality of print jobs as taught by Winston '384, in the system of Christodoulou '092 and Rourke '721. In doing so, the system distribute the workflow of the document into different jobs, thus having less amount of work in each device and lowering the extra work of each device making the system efficient.

9. Claims 9-12, 23-26 and 39-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christodoulou et al. (US 2002/0159092) and Rourke et al. (US 5,995,721) as applied to claims above, and further in view of Lobiondo (US 5,287,194).

(1) regarding claims 9, 23 and 39:

Christodoulou '092 and Rourke '721 disclose all the subject matter as described above except the selecting step further comprises: calculating the time until the printers are available; and sending the print job to the first available printer.

However, Lobiondo '194 teaches the selecting step further comprises: calculating the time until the printers are available (column 2, lines 51-54 and column 4, lines 52-

54, where by checking which printer is the fastest it calculates the time); and sending the print job to the first available printer (column 4, lines 58-63, where the job is send to the printer when it becomes available).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the selecting step further comprises: calculating the time until the printers are available and sending the print job to the first available printer as taught by Lobiondo '194, in the system of Christodoulou '092 and Rourke '721. With this, computer resources are managed in an efficient manner and the users do not have to wait for too long when waiting for a job to printed, thus improving the performance of the system.

(2) regarding claims 10, 24 and 40:

Christodoulou '092 and Rourke '721 disclose all the subject matter as described above except the selecting step further comprises: calculating the time required for the print jobs to print; and sending the print jobs to the printer with the lowest calculated time required to print the print job.

However, Lobiondo '194 teaches the selecting step further comprises: calculating the time required for the print jobs to print (column 2, lines 42-46); and sending the print jobs to the printer with the lowest calculated time required to print the print job (column 2, lines 48-56, where the system sends the document to the printer that has low completion time).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the selecting step further comprises: calculating the time

required for the print jobs to print; and sending the print jobs to the printer with the lowest calculated time required to print the print job as taught by Lobiondo '194, in the system of Christodoulou '092 and Rourke '721. With this, computer resources are managed in an efficient manner and the users do not have to wait for too long when waiting for a job to printed, thus improving the performance of the system.

(3) regarding claims 11, 25 and 41:

Christodoulou '092 and Rourke '721 disclose all the subject matter as described above except the selecting step further comprises: ranking the printers based on the time until the printers are available; and assigning the print jobs to the printers based on the printer ranking.

However, Lobiondo '194 teach the selecting step further comprises: ranking the printers based on the time until the printers are available (column 4, lines 35-66, where the selection of the optimum printer is being made); and assigning the print jobs to the printers based on the printer ranking (column 4, lines 35-66, where the jobs are assigned to the first available printer).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the selecting step further comprises: ranking the printers based on the time until the printers are available; and assigning the print jobs to the printers based on the printer ranking as taught by Lobiondo '194, in the system of Christodoulou '092 and Rourke '721. With this, computer resources are managed in an efficient manner and the users do not have to wait for too long when waiting for a job to printed, thus improving the performance of the system.

(4) regarding claims 12, 26 and 42:

Christodoulou '092 and Rourke '721 disclose all the subject matter as described above except the selecting step further comprises: ranking the printers based on the time required for the print jobs to print; and assigning the print jobs to the printers based on the printer ranking.

However, Lobiondo '194, teach the selecting step further comprises: ranking the printers based on the time required for the print jobs to print (column 2, lines 48-65, where the selection of the available printer is being interpreted as a ranking system); and assigning the print jobs to the printers based on the printer ranking (column 2, lines 48-65, where the system sends the document to the printer that has low completion time).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that the selecting step further comprises: ranking the printers based on the time required for the print jobs to print; and assigning the print jobs to the printers based on the printer ranking as taught by Lobiondo '194, in the system of Christodoulou '092 and Rourke '721. With this, computer resources are managed in an efficient manner and the users do not have to wait for too long when waiting for a job to printed, thus improving the performance of the system.

10. Claims 13, 27 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christodoulou et al. (US 2002/0159092) and Rourke et al. (US 5,995,721) as applied to claims above, and further in view of Ferlitsch et al. (US 2004/0190042).

Christodoulou '092 and Rourke '721 disclose all the subject matter as described above except printing a control page with each print job; and

wherein the control page contains printed instructions for reassembling the document.

However, Ferlitsch '042, in the same field of endeavor, teaches printing a control page with each print job (paragraph [0079], where the instructions to reassembly the print job is being interpreted as the control page); and

wherein the control page contains printed instructions for reassembling the document (paragraph [0079]).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made printing a control page with each print job; and wherein the control page contains printed instructions for reassembling the document as taught by Ferlitsch '042, in the system of Christodoulou '092 and Rourke '721. With this, it assures the reliability of having a complete document and not to lose any part of the complete document.

11. Claims 14, 28 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christodoulou et al. (US 2002/0159092) and (US 5,995,721) as applied to claims above, and further in view of Chang et al. (US 7,318,086).

(6) regarding claims 14, 28 and 44:

Christodoulou '092 and Rourke '721 disclose all the subject matter as described above except wherein the appropriate printer is determined using a print farm profile; and wherein the print farm profile includes data regarding a number, a size, and a type

for each of a plurality of print jobs in a print queue for the appropriate printer, and a printer speed and an amount of paper in a printer bin for the appropriate printer.

However, Chang '086 teaches wherein the appropriate printer is determined using a print farm profile; and wherein the print farm profile includes data regarding a number, a size, and a type for each of a plurality of print jobs in a print queue for the appropriate printer, and a printer speed and an amount of paper in a printer bin for the appropriate printer (column 6, lines 7-49, where the device object has been interpreted as a profile and it contains all the characteristics suggested by the print farm profile).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made wherein the appropriate printer is determined using a print farm profile; and wherein the print farm profile includes data regarding a number, a size, and a type for each of a plurality of print jobs in a print queue for the appropriate printer, and a printer speed and an amount of paper in a printer bin for the appropriate printer as taught by Chang '086 in the system of Christodoulou '092 and Rourke '721. With this an object may refer to a software and data entity, which may reside in different hardware environments or platforms or applications. An object may encapsulate within itself both data and attributes describing the object, as well as instructions for operating that data. For simplicity of discussion, an object may also include, for example, the concept of software components that may have varying granularity and can consist of one class, a composite of classes, or an entire application (column 5, lines 11-20).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LENNIN R. RODRIGUEZ whose telephone number is (571)270-1678. The examiner can normally be reached on Monday - Thursday 7:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

/Lennin R Rodriguez/
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